

FIG.1

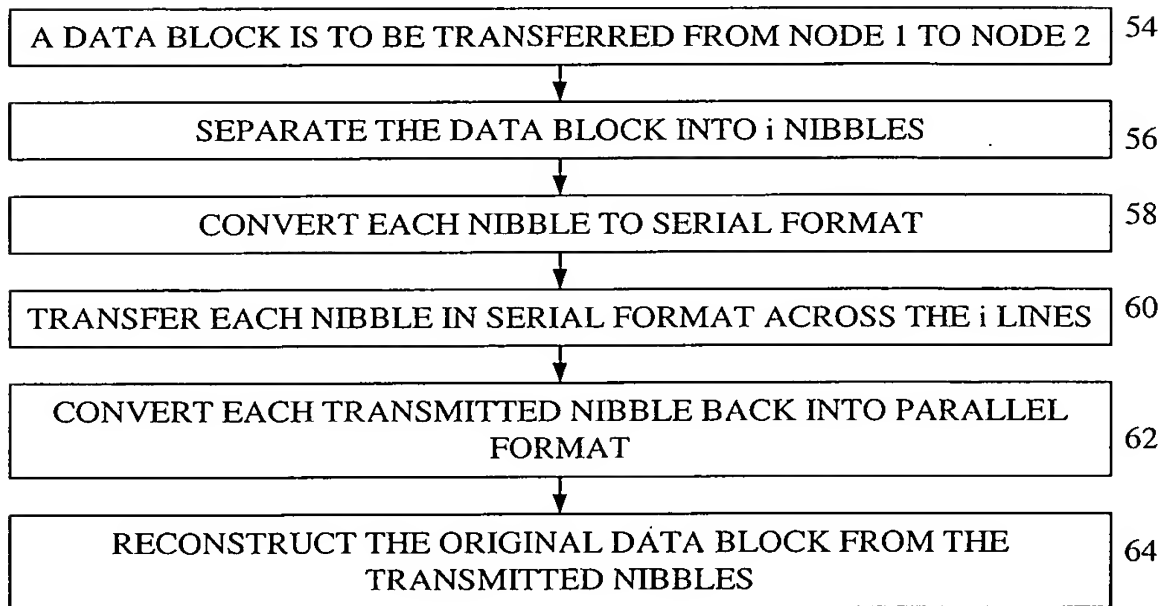


FIG.3

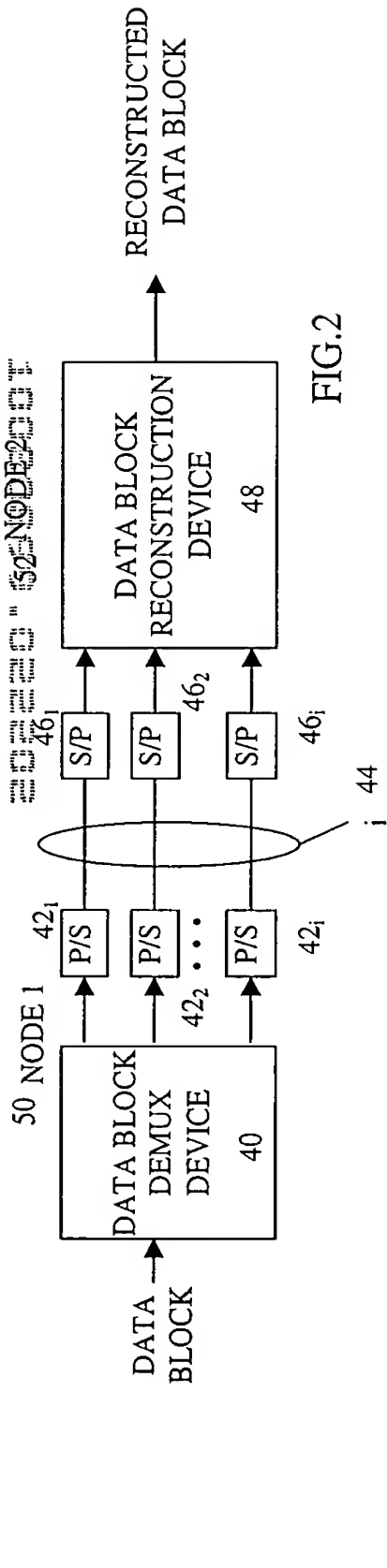


FIG. 2

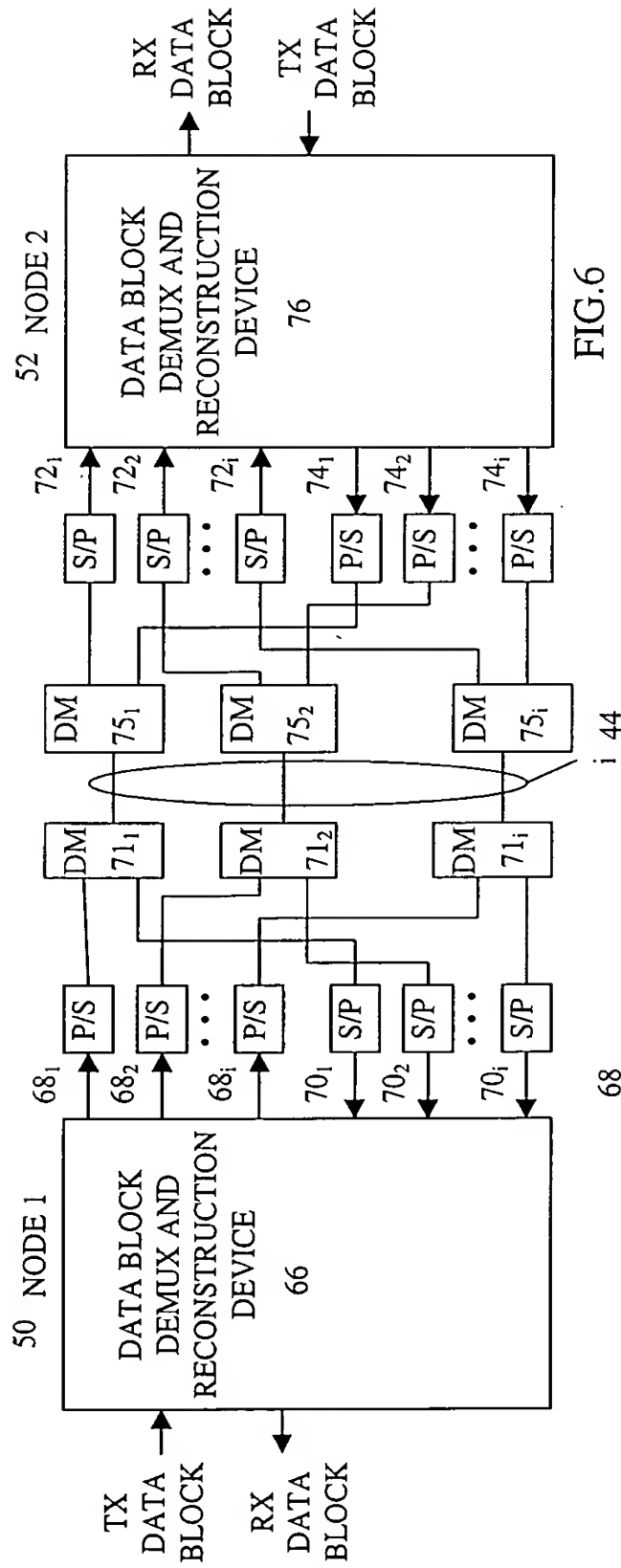


FIG. 6

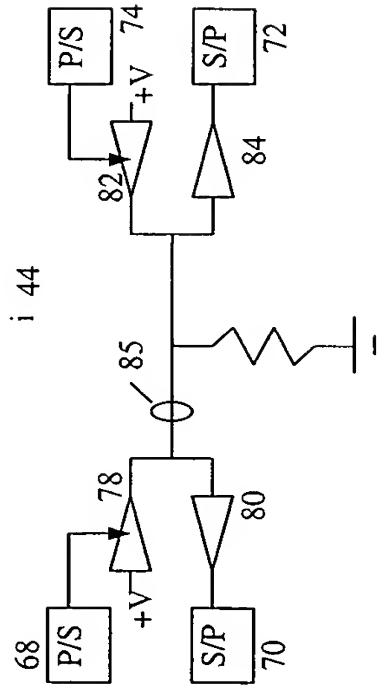


FIG. 7

The diagram illustrates a 2-line optical interconnect system for data recovery. It shows the flow of data from a **DATA BLOCK** through an optical system to a **RECOVERED DATA BLOCK**.

Data Block Structure: The **DATA BLOCK** is divided into two 4-bit nibbles:

- MS NIBBLE:** Contains bits D1, D2, D3, and D4.
- LS NIBBLE:** Contains bits D5, D6, D7, and D8.

Optical System: The data is transmitted through **2 LINES**, represented by two parallel optical paths (fibers or waveguides).

Recovered Data Block Structure: The **RECOVERED DATA BLOCK** is divided into two 4-bit nibbles:

- MS NIBBLE:** Contains bits D1, D2, D3, and D4.
- LS NIBBLE:** Contains bits D5, D6, D7, and D8.

Connections: Arrows indicate the data flow from the **DATA BLOCK** to the **RECOVERED DATA BLOCK** via the **2 LINES**. The connections show that the MS NIBBLE of the data block is recovered as the MS NIBBLE, and the LS NIBBLE is recovered as the LS NIBBLE, demonstrating a direct mapping of the data structure through the optical system.

The diagram illustrates the 2-Line Optical Interconnect for Data Transfer. It shows a 'DATA BLOCK' on the left with bits D1 through D8. Two arrows labeled '2 LINES' pass through a lens to a right side. The right side has an 'LS NIBBLE' (D2, D4, D6, D8) and an 'MS NIBBLE' (D1, D3, D5, D7). Arrows show the mapping from the data block to these nibbles and then to a 'RECOVERED DATA BLOCK' on the far right, which contains all eight bits D1-D8.

FIG.5

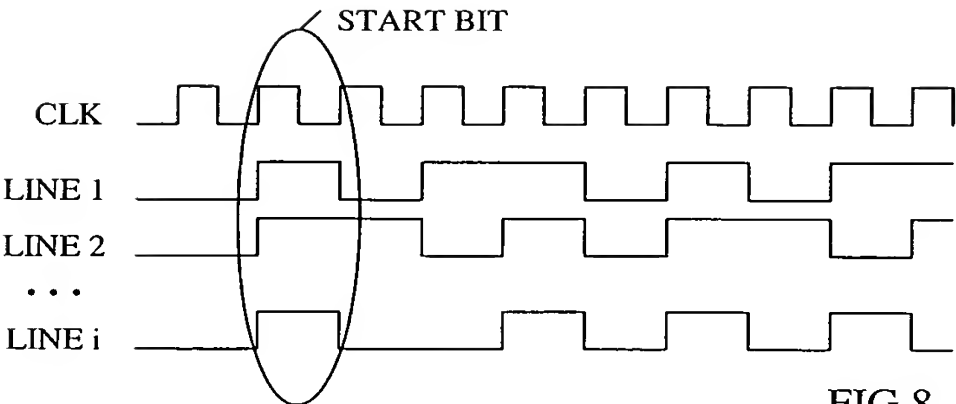


FIG. 8

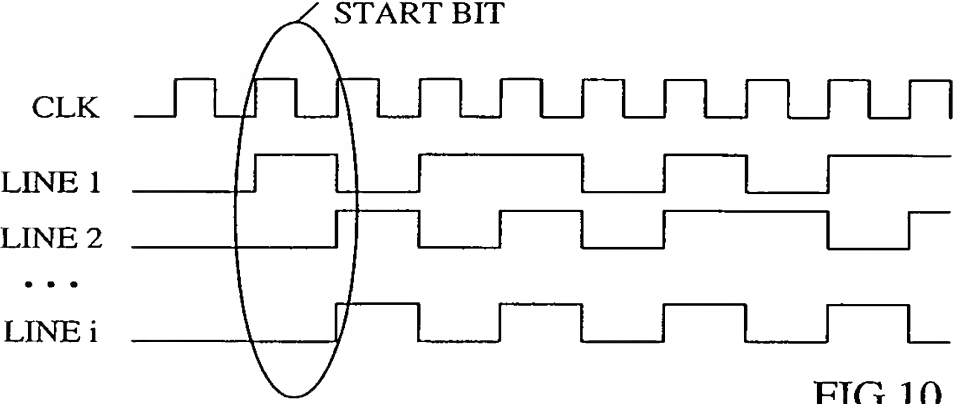


FIG. 10

FUNCTION	LINE 1	LINE 2
ABSOLUTE VALUE	1	1
RELATIVE INCREASE	1	0
RELATIVE DECREASE	0	1
NO DATA TRANSFERRED	0	0

FIG. 11

FUNCTION	LINE 1	LINE 2
DEVICE 1	1	1
DEVICE 2	1	0
INVALID	0	1
NO DATA TRANSFERRED	0	0

FIG. 13

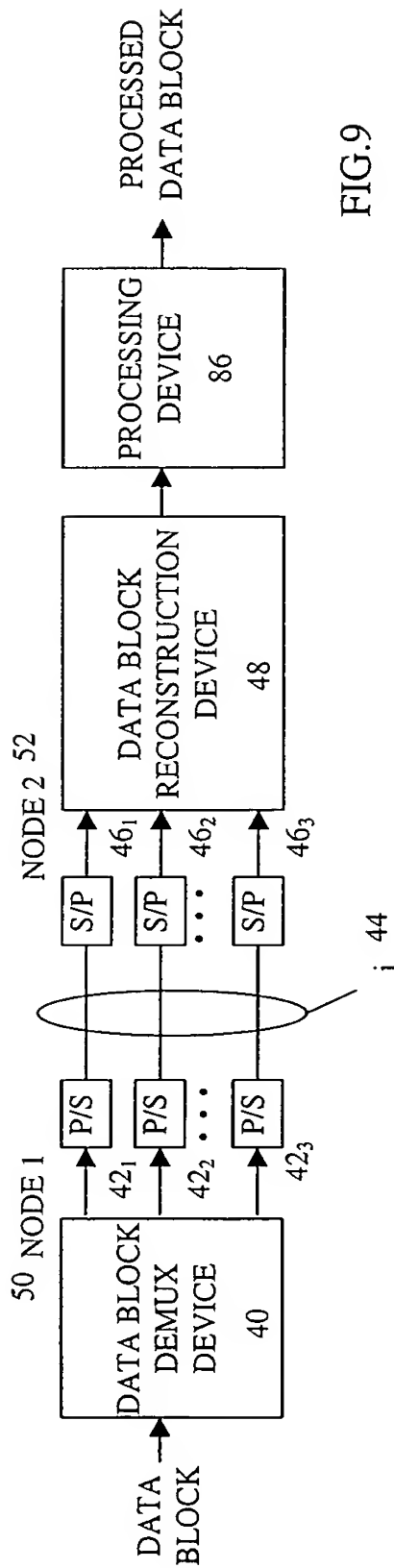


FIG. 9

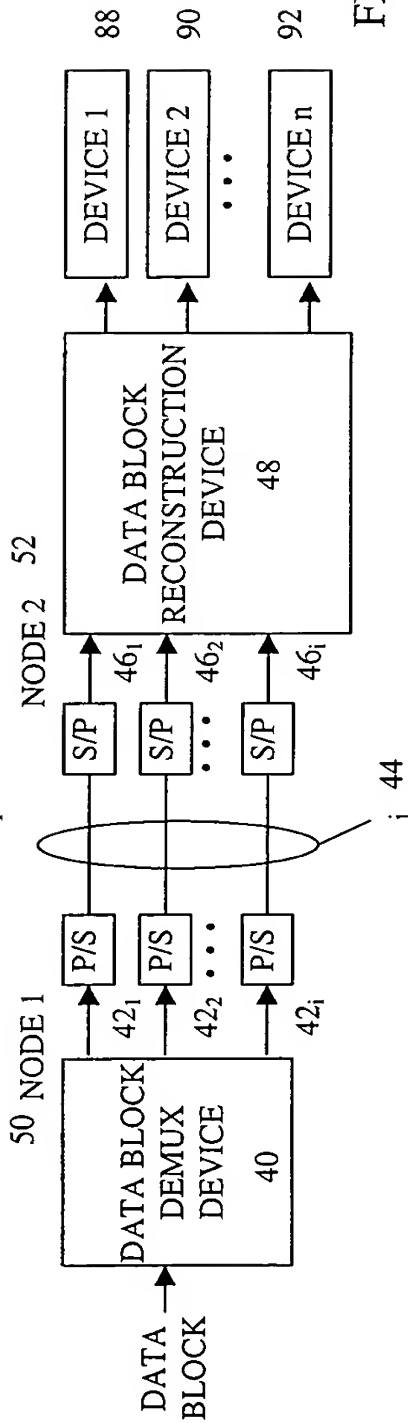


FIG. 12

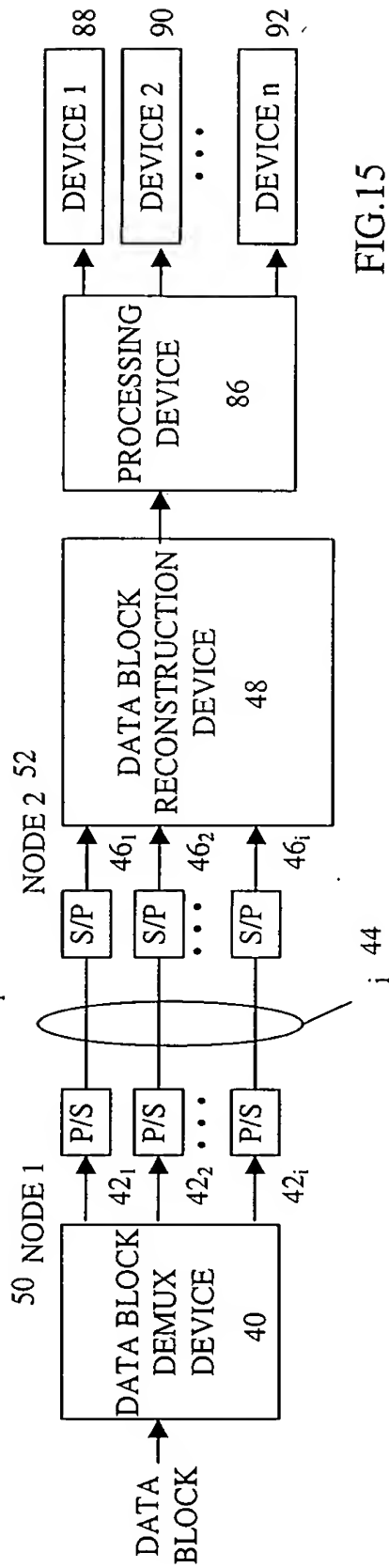
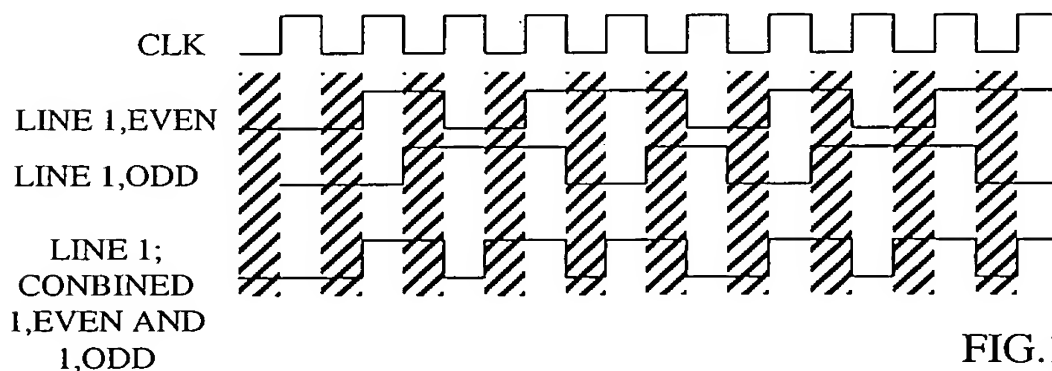
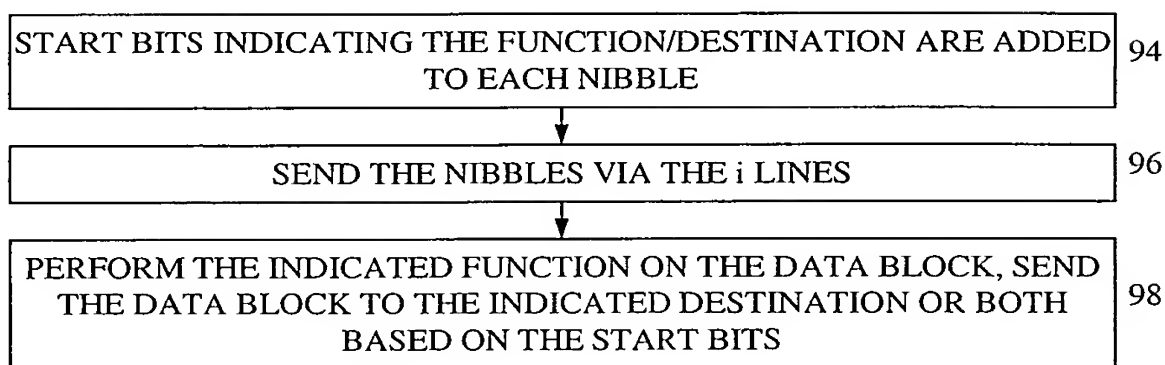


FIG. 15

FUNCTION/DEVICE	LINE 1	LINE 2	LINE 3
ABSOLUTE VALUE/DEVICE 2	1	1	1
ABSOLUTE VALUE/DEVICE 1	1	1	0
RELATIVE INCREASE/DEVICE 2	1	0	1
RELATIVE INCREASE/DEVICE 1	1	0	0
RELATIVE DECREASE/DEVICE 2	0	1	1
RELATIVE DECREASE/DEVICE 1	0	1	0
INVALID	0	0	1
NO DATA TRANSFERRED	0	0	0



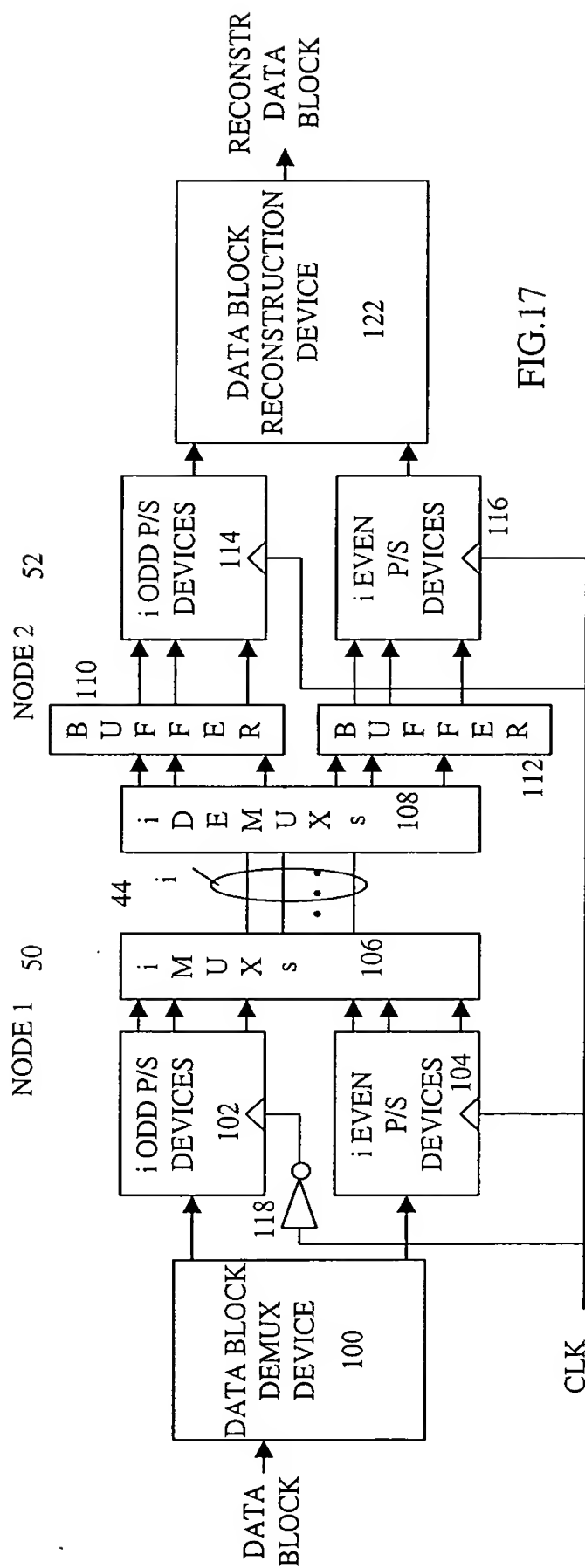


FIG.17

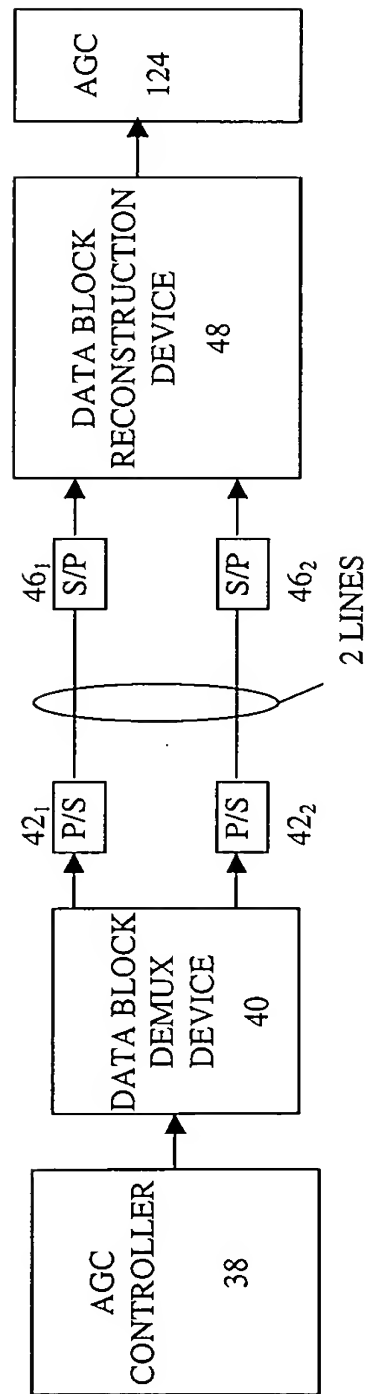


FIG.19

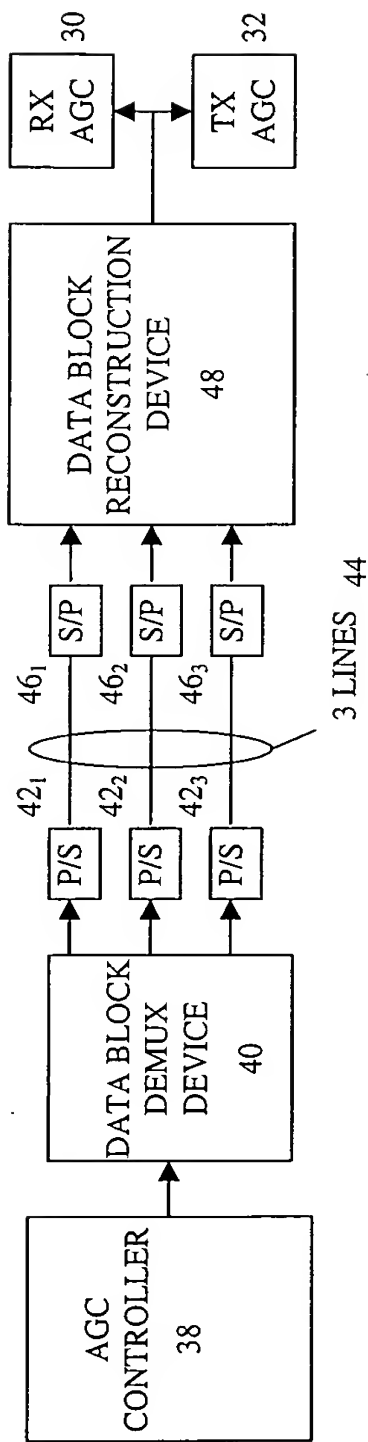


FIG. 20